Serial Number: 09/748,754 Filing Date: December 26, 2000

Title: SYSTEM AND METHOD FOR CARDIAC RHYTHM MANAGEMENT WITH SYNCHRONIZED PACING PROTECTION

PERIOD

REMARKS

Applicant has reviewed the office action dated August 27, 2003 and the references cited therewith. Claims 1, 2, 5-7, 9, 11, 12, 15-17, and 19 have been amended. Claims 1-24 are pending.

Rejections Under 35 U.S.C. § 102

In the office action, claims 1-20 were rejected under 35 U.S.C. § 102(b) as being anticipated by Thompson et al. (U.S. Patent No. 5,902,324), and claims 21-24 were rejected under 35 U.S.C. § 102(e) as being anticipated by Vock (U.S. Patent No. 6,188,926). The rejections are traversed.

Claims 1-20

For reasons previously stated, applicant believes that claims 1-20 before the amendments contained herein are patentable over the prior art of record and reserves the right to file one or more continuation applications with those claims. Nevertheless, for purposes of the present application, applicant has amended the claims herein to more clearly define over the prior art of record.

Applicant has amended claims 1 and 11 to recite in terms of a method and apparatus, respectively, a pacing mode in which a rate chamber is paced upon expiration of an escape interval which is reset after a rate chamber pace or sense, and in which a synchronized chamber is paced at a pacing instant defined to occur prior to expiration of the escape interval by a specified offset interval. The claims further recite a synchronized chamber protection period of predetermined duration which is initiated after a synchronized chamber sense and during which a pace to the synchronized chamber is inhibited. Such a pacing mode is neither taught nor suggested by the Thompson reference. As best understood, Thompson teaches pacing a rate chamber upon expiration of an escape interval which is reset by a rate chamber pace or sense, and pacing a synchronized chamber upon expiration of a CDW interval which is triggered by a rate chamber sense or pace. Thompson neither teaches nor suggests, however, a means by which the synchronized chamber can be paced at a pacing instant defined to occur before expiration of

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the rate chamber escape interval. Reconsideration and withdrawal of the rejections of claims 1 and 11 is respectfully requested.

As amended herein, claims 2-10 and 12-20 recite additional limitations to the patentable subject matters recited by claims 1 and 11, respectively. Applicant asserts that the recitations of those claims are neither taught nor suggested by Thompson in that context. Reconsideration and withdrawal of the rejections of claims 2-10 and 12-20 is respectively requested.

Claims 21-24

The office action asserts that the Vock reference teaches a pacemaker "with back-up pacing based on exertion level to provide constant rate pacing unless pacing is inhibited during a protection period initiated by a sense in the chamber." Applicant believes that the examiner has misunderstood what Vock actually teaches. As best understood by applicant, Vock teaches a pacemaker which reverts to a back-up pacing mode in the presence of electromagnetic interference, where the back-up mode provides asynchronous or constant rate pacing. Nowhere in the Vock reference, however, is there any mention of a inhibiting a pace during protective period initiated by a chamber sense while in the back-up mode. For example, in the portion of the reference cited by the examiner at col. 4, lines 13-14, the discussion of intrinsic cardiac activity inhibiting the pacemaker only relates to when the pacemaker is calculating the back-up pacing rate prior to entering the back-up mode, and not to when the pacemaker is actually delivering asynchronous pacing in the back-up mode. The recitations of claims 21 are thus clearly not anticipated by the Volk reference, and applicant respectfully requests withdrawal of the rejections on this basis.

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CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone applicant's attorney ((847) 432-7302) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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By their Representatives,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, Washington, D.C. 20231, on this

day of December 2003.